[OESEN-STR-100, 200, 300, 400, 500, 600]

# **Fibre Bragg Grating Strain Sensors**

#### **Applications:**

- Spectroscopy
- Optical sensing
- Laser technology
- R&D and laboratory testing
- For fine tuning of the FBG wavelength
- For stabilizing the FBG wavelength

### **Product description:**

A new, low cost fibre grating strain sensor is now available at **O/E LAND INC**. Based on our new design, this new fibre grating strain sensor can be widely used in construction, bridge, aerospace, electrical, petrochemical, biomedical, nuclear and other industry applications.

The fiber cable can be packaged with armoured cable (or other type of cables) to protect from damage in harsh environments, like rust, shock, corrosion, vibration, and sharp mechanical objects. **OESEN-STR-100, 200, 300, 400, 500, 600** can also be used with welding base to have a long term life time.

# Surface Mount Strain Sensor with Model number: OESEN-STR-100



Fig1. Fiber Bragg Grating Strain Sensor for Surface Mount

# **Specifications of OESEN-STR-100:**

Parameter	Unit	OESEN-STR-100A	OESEN-STR-100B
Range	μStrain	±1000	±3000
Resolution	μStrain	1	5
Working Temperature	°C	-50 - +80	-50 - +80
Size (Length x width x height)	mm	70 x 18 x 11	150 x 18 x 14

<sup>\*</sup> Some limitations apply.

#### Small Form Surface Mount Strain Sensor with Model number: OESEN-STR-200



Fig2. FBG Strain Sensor with small form surface mount

# **Specifications of OESEN-STR-200:**

Parameter	Unit	Value
Range	μStrain	±1000 (larger strain range available)
Resolution	μStrain	1
Working Temperature	°C	-50 - +80
Size (Length x width x height)	mm	6 x 40 x 4

<sup>\*</sup> Some limitations apply.

<sup>\*\*</sup>Tuning range can significantly vary depending on FBG specifications.

<sup>\*\*\*</sup> Recommended values. The ambient environment temperature can limit the performance, incl. the tuning range.

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# **High profile Surface Mount Strain Sensor with Model number OESEN-STR-300:**

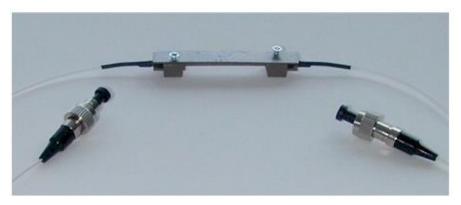


Fig3. FBG Strain Sensor with high profile surface mount

# **Specifications of OESEN-STR-300:**

Parameter	Unit	Value
Range	μStrain	±1000 (larger strain range available)
Resolution	μStrain	1
Working Temperature	°C	-50 - +80
Size (Length x width x height)	mm	8 x 54 x 7

<sup>\*</sup> Some limitations apply.

#### **Embedded Mount Strain Sensor with Model number: OESEN-STR-400:**



Fig4. FBG Strain Sensor with embedded mount

<sup>\*\*</sup>Tuning range can significantly vary depending on FBG specifications.

<sup>\*\*\*</sup> Recommended values. The ambient environment temperature can limit the performance, incl. the tuning range.

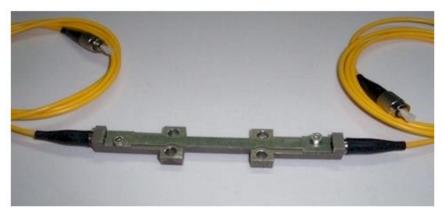


# **Specifications of OESEN-STR-400:**

Parameter	Unit	Value
Range	μStrain	±1000 (larger strain range available)
Resolution	μStrain	1
Working Temperature	°C	-50 - +80
Size (diameter x height)	mm	18 x 100

<sup>\*</sup> Some limitations apply.

# Long Strain Range Strain Sensor with Model number: OESEN-STR-500



 ${\it Fig5.} \ {\it FBG Long Range Strain Sensor}$ 

# **Specifications of OESEN-STR-500:**

Parameter	Unit	Value
Range	μStrain	±1000 (larger strain range available)
Size (Length x width x height)	mm	150 x 20 x 12
Working Temperature	°C	-50 - +80
Mounting distance	mm	40

<sup>\*</sup> Some limitations apply.

 $<sup>\</sup>hbox{\it **Tuning range can significantly vary depending on FBG specifications.}$ 

<sup>\*\*\*</sup> Recommended values. The ambient environment temperature can limit the performance, incl. the tuning range.

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<sup>\*\*\*</sup> Recommended values. The ambient environment temperature can limit the performance, incl. the tuning range.

# **Temperature Compensated Strain Sensor with Model number: OESEN-STR-600**



Fig6. Temperature Compensated Fiber Bragg Grating Strain Sensor

#### **Specifications of OESEN-STR-600:**

Parameter	Unit	Value
Range	μStrain	±1000
Resolution	μStrain	1
Working Temperature	°C	-10 - +70
Size (diameter x height)	mm	70 x 20 x 12

<sup>\*</sup> Some limitations apply.

Fibre Bragg grating temperature sensors with any wavelength can be delivered in a short time. Low cost product, quick delivery time, high reliability and good performance are our products' main features.

<sup>\*\*</sup>Tuning range can significantly vary depending on FBG specifications.

<sup>\*\*\*</sup> Recommended values. The ambient environment temperature can limit the performance, incl. the tuning range.